

MODIS Technical Team Meeting
Thursday, March 8, 2001
3:00 PM

Vince Salomonson chaired the meeting. Present were Mike Roberto, Bruce Guenther, Bruce Ramsay, Eric Vermote, Steve Kempler, Skip Reber, Sol Broder, Ed Masuoka, Wayne Esaias, Michael King, and Barbara Conboy, with Rebecca Lindsey taking the minutes.

1.0 Schedule of Upcoming Events

- Terra Cloud Mask Conference
University of Wisconsin-Madison May 8-9, 2001
- Ocean Color Science Meeting
San Diego, CA May 22-24

2.0 Meeting Minutes

2.1 Instrument Updates

(The instrument reports were compiled by Chad Salo, Mark Domen, and Mike Roberto.)

Terra MODIS

Raytheon is working on the problem of decreased responsivity of a number of pixels in a number of PV LWIR bands. There is nothing yet to report. The instrument is working nominally with no resets. The DAAC was able to process the data that contained solar diffuser sector frames, which had been moved into the SRCA sector (there had been problems with direct broadcast of this data). At the time these changes were made, Chad Salo indicated the sector changes looked good based on engineering telemetry and there were the expected TAXI errors during the sector transitions.

Aqua MODIS

The spacecraft and instrument comprehensive performance tests (CPTs) are complete. Testing was performed on the A and B sides, and MODIS worked fine for the 14 days, except for two problems. First, when MODIS was commanded to safe mode from science mode, it went to safe mode, but after the instrument was in safe mode, there was a command processor reset. Second, MODIS was commanded to operate macro 4 to change the black body set point. There was

no change. The command was sent again, and it worked. The team is still working to determine if the first command was received by MODIS.

Raytheon is doing thermal analysis to determine how cold MODIS will get during spacecraft level thermal vacuum testing. MODIS may not get down to survival level. The work around (assuming MODIS will get cold enough for cold level tests) is to go through the MODIS J44 test connector, bypass the MODIS survival thermostat and determine if the spacecraft powers the MODIS survival heaters.

The spacecraft interface test will be rerun on Monday, March 12th. Essentially, this is a hardwire test between the Goddard operations center and TRW. It is now looking as though spacecraft level thermal vacuum testing will occur in June or July. The Aqua launch date is scheduled for September 20.

2.2 General Discussion

Salomonson reported that there is an interest in getting some new scientific imagery/results posters for NASA HQ and various locations at Goddard. We might want to give Ghassem Asrar several images to choose from. Vince presented several images and asked those present to send any suggestions to Barbara Conboy.

There is still a plan to give a presentation to Jim Dodge and Diane Wickland that would provide information on how we process MODIS data. The intent is to make sure that both of them have as full an appreciation as possible of the complete nature and extent of the efforts devoted to developing and maintaining algorithms and the data processing, etc. that is necessary to produce products for the Earth science community.

Guenther reported that he has been hearing from operations staff that orbit raising on Aqua could take as long as thirty days. There was considerable discussion about whether we want to delay the start of Aqua MODIS outgassing until day 46. He doesn't know if it is a moon phase problem, a ground track consideration for the "A-train," or whether they don't think they can do an insertion, but he will continue to track the issue.

2.3 GES DAAC Update

Kempler reported that processing is going well, although they have been having some EDOS Level 0 delivery problems that are keeping them from being 100% complete. In reality their backlog of data is about three days behind real time.

Reber asked about the issue of missing data contacts, and Kempler said he didn't know the status of that problem, but he would look into it.

Salomonson asked Masuoka if he had information regarding the timeliness of definitive ephemeris data on Aqua. There were some questions raised in that regard by Al Fleig some weeks ago. He would like an update on the issue.

The GES DAAC has been filling atmosphere and MCST special requests. They are modifying their current arrangement of shutting down production to push data to MODAPS. Instead of doing 24 hours on/24 hours off, they will be doing 8 hour cycles.

2.4 MODAPS Update

Masuoka reported that they are in the process of getting approval for V2 from the science team. Most products are identical on V2 and V1, but a few are not. They are looking into the exceptions. They will be processing through Jan 8th on both systems to do Oceans comparisons. For land, once they reach L3 weeklies, they will transition to MODAPS V2.

We have ordered the Origin 3000, and they hope it will be operational by May 1. MODAPS is still about two months behind real time.

2.5 EOSDIS Update

Reber reported that the Science Working Group's long term project to report on desired resource increases has resulted in an expected four million dollars for use to solve EOS/Terra problems within ECS. MODIS will likely get about two million. The plan is to take DAAC baselines from 605 to 750 GB/day to support 4x ingest and retrieve. Masuoka added that our estimates didn't match up exactly with Mike Moore's, and he suggested that we need to get details about what we want to accomplish and ask the DAACS to tell us what we need to get there. Vermote asked if MODAPS could be covered by this money, but the answer was no. Vermote then wondered whether spending money on increasing distribution capacity is the best use of the money if our actual distribution is less than 15 percent or so. Kempler responded that distribution would go up as product maturity increased.

2.6 NOAA/NESDIS

Ramsay reported that he had been asked by Gene Legg, NOAA/NESDIS/OSDPD to provide an ORA server and an address for MODIS

data in possible anticipation of the installation of the new 10 Mbps data line between the NOAA/NESDIS MODIS server in Building 32 and the NOAA Suitland facility. This is an encouraging sign. Sizing tests are planned by National Climatic Data Center for the Satellite Active Archive and NCDC, but no results are available yet.

2.7 MAST Update

Conboy reported that Lindsey had delivered a draft of the updated MODIS brochure to the Science Team leaders and to Winnie Humberson in the EOS Publications Office.

3.0 Action Items

3.1 Discipline leads to meet to resolve the issue of beta-release code and science-quality code, and what we need to say about it.

Status: Open.

3.2 Masuoka to send Mark Gray a copy of the code-porting guide for MODAPS's transition to Linux.

Status: Open.